REMARKS

Claims 1 to 11 and 13 to 15 are pending in the application, of which Claims 1, 10, 14 and 15 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 3, 5 to 9 and 13 to 15 were rejected under 35 U.S.C. § 103(a) over U.S. Published Appln. No. 2004/0201613 (Simpson) in view of U.S. Patent No. 6,978,445 (Laane), and in further view of U.S. Patent No. 6,832,351 (Batres). Claim 4 was rejected under 35 U.S.C. § 103(a) over Simpson in view of Laane, in further view of Batres, and in further view of U.S. Published Appln. No. 2002/0046238 (Estavillo). Claim 10 was rejected under 35 U.S.C. § 103(a) over Simpson in view of Laane, in further view of Batres, and in further view of U.S. Published Appln. No. 2002/0143814 (Hepworth). Claim 11 was rejected under 35 U.S.C. § 103(a) over Simpson in view of Laane, in further view of Batres, in further view of Hepworth, and in further view of U.S. Patent No. 7,047,033 (Wyler). Reconsideration and withdrawal of these rejections are respectfully requested.

The present claims concern dynamic adjustment of the scale of individual frames of a framed web page so that the printing of the web page content which is displayed using two or more frames and preserves at least partially the layout of the web page in a printed representation.

Frames in a web page are used to divide the user's display into two or more windows that can be scrolled independently. As a consequence, where one or more of these windows include content extending beyond the limits of the window, unique printing challenges are presented. Conventional systems provide users wanting to print web pages having long and/or wide frames with the options of printing: the frames as laid out on the screen, that is

including scroll bars and only the part of the content in each frame that is currently displayed on the screen; the selected frame; or each frame separately. While the latter two options may result ultimately in all the content of the frame being printed, the arrangement of the printed frame with respect to other frames on the web page is lost and the user may lack the required context when reviewing the print-out.

However, the present claims provide for a printed representation of the web page that preserves much of the display format of the web page. By way of a non-limiting example from the present application's specification and drawings, Figs. 18A to 18D and their corresponding descriptions illustrate a method of handling long frames in accordance with the present claims. Such a method prepares a printable representation 1850 of a web page 1800 by resizing long frames taking into account the frame dependencies between frames 1802, 1804, 1806, and 1808, and dealing with resulting overlaps between the frames. Similarly, Figs. 23A and 23B illustrate a method of handling horizontal overlapping of frames in accordance with the present claims. Accordingly, it can be appreciated that preparing a printable representation of a web page having long and/or wide frames, that is frames with content extending beyond the limits of the frame, is not a straightforward process and relies on a consideration of the dependency between frames and the effect of expanding a frame on neighboring frames.

Turning to specific claim language, amended independent Claim 1 is directed to a computer-implemented method of forming a printable representation of a web page document having content in at least two frames, the computer including a processor, a memory and a display device each coupled to the processor, the web page document being displayed by the processor upon the display to represent the content in the at least two frames. The method comprises the steps of: (a) recording in the memory a position, height and width of each frame of

the at least two frames of said web page document in a display widow of the display device in which said web page document is presented; (b) identifying using the processor dimensions of a printing medium associated with said printable representation; (c) determining using the processor a height of the content ~~of~~ in each frame of said at least two frames; (d) determining using the processor, for each frame of said at least two frames ~~frame~~, a record of any corresponding dependency frames, each said dependency frame being above a respective frame of said at least two frames ~~frame~~ in said display window; (e) interpreting using the processor the records to establish a display order of said at least two frames. Then (f) for each frame of said at least two frames, and in said display order, using the processor to: (fa) check a start position of said each frame of said at least two frames against an end position of a created display region of a frame upon which said each frame of said at least two frames is dependent, and setting said start position to be said end position; (fb) create a display region upon a page in said printable representation at said start position according to said corresponding content height; (fc) place the content of said each frame of said at least two frames into said display region; and (fd) where said display region exceeds a page limit in said printable representation, terminate the display region at the page limit and create a further display region upon a following page of the printable representation so as to span the content of said each frame of said at least two frames across the display region and the further display region. Finally, (g) one of storing the printable representation in the memory and transmiting the printable representation to a printer for printing is performed.

Applicant respectfully submits that the cited references, namely Simpson, Laane and Batres, considered either alone or in combination, fail to disclose or suggest all of the features of the present claims.

In contrast to the present claims, Simpson is directed to the arrangement of multiple source documents into a printable composition page. However, Simpson is not seen to address source documents which have frames. It is to be noted that while the composition page 290 in Simpson somewhat resembles a document having frames, this composition page is not a web page document having at least two frames that is be processed in a particular manner so that the layout of the frames is preserved and all the content in the frames is present in a printable representation. In other words, Simpson treats a source document having frames in exactly same manner as a source document without any frames, that is simply allowing the document to be arranged by the user to form one part of the composition page without regard to how these documents are displayed on a screen. As such, Applicants submit that Simpson fails to address frames at all. Accordingly, Simpson also fails to disclose or suggest recording in a memory a position, height and width of each frame of the at least two frames of said web page document in a display widow of the display device in which said web page document is presented, determining using the processor a height of the content in each frame of said at least two frames, and interpreting using the processor the records to establish a display order of said at least two frames. In addition, Simpson fails to disclose or suggest for each frame of said at least two frames, and in said display order, using the processor to: check a start position of said each frame of said at least two frames against an end position of a created display region of a frame upon which said each frame of said at least two frames is dependent, and setting said start position to be said end position; create a display region upon a page in said printable representation at said start position according to said corresponding content height; place the content of said each frame of said at least two frames into said display region; and where said display region exceeds a page limit in said printable representation, terminate the display region at the page limit and

create a further display region upon a following page of the printable representation so as to span the content of said each frame of said at least two frames across the display region and the further display region.

Applicants have reviewed Laane and submit that nothing in Laane is found to provide that which is missing from Simpson. Laane is directed to loading a web page having frames into a memory and does not address printing of displayed pages in order to preserve a layout. In particular, Laane discloses that a data interdependency may exist among frames 310, which may then require these frames to be loaded in some particular order when page 300 is loaded by the browser. (See Laane, column 5, lines 38 to 41). In contrast to Laane, the present claims are concerned with the printing of frames, not with the order in which the frames are loaded to a browser for display. Applicants respectfully submit that the Office Action confuses the issues of displaying framed content with printing frame content. The present claims are concerned with the accurate printing of framed content to replicate the manner in which the framed content is displayed and not with arranging frame content for display as is Laane.

Furthermore, in Laane there is no disclosure or suggestion of checking a start position of the frame against an end position of a created display region of a frame upon which the frame is dependent, and setting the start position to be the end position. However, in the Office Action, it is contended that such a feature is shown in Fig. 3 of Laane. However, what is shown in the figure is a display, which is merely the starting point and not the result of the operation of the apparatus of Claim 1.

Turning now to Batres, Batres is directed to a method of constructing a page, such as an invoice, that utilizes HTML and OLE components so that the page is both viewable and printable, without the need for sophisticated user control. However, the present claims are

directed to printing a web page document in a fashion to match the presentation of the web page document on a display screen, and without the need to reconstruct the web page in any special way. In particular, Batres refers, to the "creation, editing and manipulation of customised pages for printout, especially business forms such as invoices and billing statements." As discussed in Batres, data is received or retrieved from an invoice that is too large to be displayed on a single page and is converted into HTML that can then be loaded to a template that is able to handle the span of pages for the document.

Finally, in Batres, there is no disclosure that the actual printed document will look the same as that of the input or source document which, as interpreted by the process of Batres, requires some amount of reformatting for printing. In contrast, according to the present claims, the web page document is a document intended to be displayed on a display screen, within a web browser for example. The web page document specifically recited as having framed content. However, there is nothing in Batres that indicates that the content is actually framed.

In light of these deficiencies in Simpson, Laane and Batres, Applicants submit that Claim 1 is now in condition for allowance and respectfully request same.

Claims 10, 14 and 15 are directed to a method, a computer-readable medium and a system, respectively, substantially in accordance with the method of Claim 1. Accordingly, Applicants submit that Claims 10, 14 and 15 are also in condition for allowance and respectfully request same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect

of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

CONCLUSION

No claim fees are believed due; however, should it be determined that additional claim fees are required, the Director is hereby authorized to charge such fees to Deposit Account 06-1205.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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